



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

11A

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,417	11/28/2003	Masashi Takahashi	246063US2S	7391

22850 7590 03/12/2007
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

CORBETT, JOHN M

ART UNIT	PAPER NUMBER
----------	--------------

2882

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/12/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/12/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No. 10/722,417	Applicant(s) TAKAHASHI ET AL.	
	Examiner John M. Corbett	Art Unit 2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 11-12 are objected to because of the following informalities, which appear to be minor draft errors including grammatical and/or lack of antecedent basis problems.

In the following format (location of objection; suggestion for correction), the following correction(s) may obviate the objection(s):

(Claim 1, line 12; “protection data” was claimed, perhaps “projection data” was meant),

(Claim 11, line 3; “said photographing data” was claimed, perhaps “said raw data or projection data” was meant),

(Claim 12, line 4; “said photographing data” was claimed, perhaps “said raw data or projection data” was meant).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogino et al. (20020029264).

With respect to claim 1, Ogino et al. teaches a system, comprising: a first medical imaging apparatus (51); a second medical imaging apparatus (53); and a data managing system (500) connected to said first and second apparatuses via a network (1), wherein said first medical imaging apparatus includes: a photographing system (Paragraph 20) to obtain raw data or projection data (D1) related to a subject by photographing the subject under at least one photographing condition; and a transmitter to transmit (Abstract), via said network to said data managing system, said raw data or projection data and appended information, which is information included in said at least one photographing condition and needed to generate biological information related to the subject (501), and wherein said data managing system includes: a first receiver (10A) to receive said raw data or projection data and said appended information; a memory (500) to store said raw data or projection data and said appended information received; and a second transmitter (10A) to transmit said raw data or projection data and said appended information to said second medical imaging apparatus (Abstract), and wherein said second medical imaging apparatus includes: a second receiver to receive said raw data or projection data and said appended information (Abstract); and a biological information generating unit (501) to generate the biological information related to the subject, based on said raw data or projection data and said appended information received.

With respect to claim 27, Ogino et al. further teaches wherein the data managing system further includes: a judging unit to judge, based on said appended information, whether image reconstruction based on one of said raw data and said projection data is possible in said second X-ray computed tomographic apparatus, and wherein said transmission unit transmits one of said

Art Unit: 2882

raw data and said projection data, and said appended information to said second X-ray computed tomographic apparatus when said judging unit judges the reconstruction as being possible (Paragraph 221).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino et al. as applied to claim 1 above, and further in view of Lee et al. (Korean Journal of Radiology, Vol. 1, Number 3, p. 142-151, September 2000).

With respect to claim 2, Ogino et al. discloses the system as recited above. Ogino et al. further teaches wherein:

each of said first and second medical imaging apparatuses is a magnetic resonance imaging apparatus (Paragraph 20).

Ogino et al. fails to explicitly teach where the biological information is a time intensity curve.

Lee et al. teaches where the biological information is a time intensity curve (Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ogino et al. to include the time intensity curve of Lee et al.,

Art Unit: 2882

since a person would have been motivated to have a system with better imaging (Page 149 Col. 1, lines 2-8) as implied by Lee et al.

4. Claim 3 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino et al. as applied to claim 1 above, and further in view of Hoffmann et al. (6,389,096).

With respect to claim 3, Ogino et al. discloses the system as recited above. Ogino et al. further teaches wherein:

each of said first and second medical imaging apparatuses is an X-ray computed tomographic apparatus (A_CT#1 and C_CT#2);

the biological information is a reconstruction image (Paragraph 221).

Ogino et al. as modified above is silent as to the X-ray computed tomographic apparatus having a plurality of data acquisition element arrays and said appended information includes information related to the number of element arrays used to read out data among said plurality of data acquisition element arrays.

Hoffman et al. teaches wherein to the X-ray computed tomographic apparatus having a plurality of data acquisition element arrays (Figure 5) and said appended information includes information related to the number of element arrays used to read out data among said plurality of data acquisition element arrays (Col. 4, line 53 – Col. 5, line 10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ogino et al. to include the detector array and data acquisition

system of Hoffman et al., since a person would have been motivated to have a system with enhanced detector coverage (Col. 7, lines 21-27) as taught by Hoffman et al.

With respect to claim 20, Ogino et al. teaches an X-ray computed tomographic apparatus (A_CT#1) connected, via a network (1), to a data managing system (500) managing projection data, said apparatus comprising:

a transmission unit (Abstract) to transmit, via said network to said data managing system, one of said raw data and said projection data (D1), and appended information including the number of data acquisition element arrays used when reading out the electrical charges.

Ogino et al. fails to explicitly teach an X-ray irradiating unit to irradiate an X-ray to a subject while rotating about the subject;

an X-ray detecting unit having a plurality of detecting element arrays aligned in a slice direction, in each of which a plurality of detecting elements, each generating electrical charges based on an incident X-ray, are aligned in a channel direction;

a data acquisition unit, having a plurality of data acquisition element arrays, to read the electrical charges from said plurality of detecting elements by using a certain number of data acquisition element arrays among said plurality of data acquisition element arrays and generate one of raw data and projection data based on the electrical charges.

Hoffman et al. teaches an X-ray irradiating unit (14) to irradiate an X-ray to a subject (22) while rotating (12) about the subject; an X-ray detecting unit (18) having a plurality of detecting element arrays aligned in a slice direction (Figure 5), in each of which a plurality of detecting elements, each generating electrical charges based on an incident X-ray, are aligned in

Art Unit: 2882

a channel direction; a data acquisition unit (32), having a plurality of data acquisition element arrays, to read the electrical charges from said plurality of detecting elements by using a certain number of data acquisition element arrays among said plurality of data acquisition element arrays and generate one of raw data and projection data based on the electrical charges (Col. 4, line 53 – Col. 5, line 10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ogino et al. to include the detector array and data acquisition system of Hoffman et al., since a person would have been motivated to have a system with enhanced detector coverage (Col. 7, lines 21-27) as taught by Hoffman et al.

With respect to claim 21, Hoffman et al. further teaches wherein said transmission unit transmits said projection data and said appended information including information related to the number of said data acquisition elements in the slice direction to said data managing system via said network (Col. 4, line 53 – Col. 5, line 10 and Col. 6, lines 5-51).

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino et al. as applied to claim 1 above, and further in view of Frigo et al. (20030083568).

With respect to claim 4, Ogino et al. discloses the system as recited above. Ogino et al. further teaches wherein:

each of said first and second medical imaging apparatuses is a magnetic resonance imaging apparatus (A_MRI#1 and C_MRI#1);

the biological information is a reconstruction image (Paragraph 221).

Ogino et al. as modified above is silent as to appended information including information related to a channel band for a high-frequency receiving coil.

Frigo et al. teaches appended information including information related to a channel band for a high-frequency receiving coil (Paragraph 36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ogino et al. to include the data acquisition system of Frigo et al., since a person would have been motivated to have an system with an improved sampling rate (Paragraph 8) as taught by Frigo et al.

6. Claims 5-7, 10-12, 22 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino et al. in view of Gagnon et al. (6,553,248) and Hoffmann et al.

With respect to claim 5, Ogino et al. teaches a system, comprising: a first X-ray computed tomographic apparatus (A_CT#1); a second X-ray computed tomographic apparatus (C_CT#1); and a data managing system (500) connected to said first and second X-ray computed tomographic apparatuses via a network (1), wherein said first X-ray computed tomographic apparatus includes: a first transmission unit to transmit (Abstract), via said network to said data managing system, raw data or projection data (D1) and appended information, and wherein said data managing system includes: a first reception unit (10A) to receive said raw data or projection data and said appended information; a storage unit (500) to store said raw data or projection data and said appended information received; and a second transmission unit (10A) to transmit said

Art Unit: 2882

raw data or projection data and said appended information to said second X-ray computed tomographic apparatus, and wherein said second X-ray computed tomographic apparatus includes: a second reception unit (Abstract) to receive said raw data or projection data and said appended information.

Ogino et al. fails to explicitly teach wherein said first X-ray computed tomographic apparatus includes: an X-ray irradiating unit to irradiate an X-ray to a subject while rotating about the subject; an X-ray detecting unit having a plurality of detecting element arrays aligned in a slice direction, in each of which a plurality of detecting elements, each generating electrical charges based on an incident X-ray, are aligned in a channel direction; a data acquisition unit, having a plurality of data acquisition element arrays, to read out the electrical charges from said plurality of detecting elements by using a certain number of data acquisition element arrays among said plurality of data acquisition element arrays and generate raw data or projection data based on the electrical charges; appended information includes the number of data acquisition element arrays used when reading out the electrical charges.

Ogino et al. also fails to explicitly teach wherein said second X-ray computed tomographic apparatus includes: a reconstruction unit to perform image reconstruction based on said raw data or projection data and said appended information received.

Ogino et al. also fails to explicitly teach wherein said second X-ray computed tomographic apparatus includes: a reconstruction unit to perform image reconstruction based on said raw data or projection data and said appended information received.

Gagnon et al. teaches wherein said second X-ray computed tomographic apparatus includes: a reconstruction unit to perform image reconstruction based on said raw data or projection data and said appended information received (Col. 7, lines 22-41).

Hoffman et al. teaches wherein said first X-ray computed tomographic apparatus includes: an X-ray irradiating unit (14) to irradiate an X-ray to a subject while rotating (30) about the subject (22); an X-ray detecting unit (18) having a plurality of detecting element arrays aligned in a slice direction, in each of which a plurality of detecting elements, each generating electrical charges based on an incident X-ray, are aligned in a channel direction (Col. 4, line 53 – Col. 5, line 27); a data acquisition unit (32), having a plurality of data acquisition element arrays, to read out the electrical charges from said plurality of detecting elements by using a certain number of data acquisition element arrays among said plurality of data acquisition element arrays and generate raw data or projection data based on the electrical charges (Col. 5, lines 1-10 and Col. 6, lines 38-48); appended information includes the number of data acquisition element arrays used when reading out the electrical charges (Col. 4, line 53 – Col. 5, line 10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ogino et al. to include the reconstruction unit of Gagnon et al., since a person would have been motivated to have a system in which image data collected on one medical imaging photographic apparatus that was low on resources would be processed on a second medical imaging photographic apparatus that had resources available thereby making more efficient use of those network resources (Col. 7, lines 22-41) as implied by Gagnon et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate into the system of Ogino et al. as modified above the detector array and

Art Unit: 2882

data acquisition system of Hoffman et al., since a person would have been motivated to have a system with enhanced detector coverage (Col. 7, lines 21-27) as taught by Hoffman et al.

With respect to claim 6, Ogino et al. further teaches a judging unit to judge, based on said appended information, whether image reconstruction based on one of said raw data and said projection data is possible in said X-ray computed tomographic apparatus, wherein said transmission unit transmits one of said raw data and said projection data, and said appended information to said second X-ray computed tomographic apparatus when said judging unit judges the reconstruction as being possible (Paragraph 221).

With respect to claim 7, Ogino et al. further teaches wherein said first transmission unit transmits said raw data or projection data and said appended information (Abstract). Hoffman et al. further teaches wherein said appended information including information related to the number of the data acquisition elements in the slice direction to said data managing system via said network (Col. 4, line 48 – Col. 5, line 14 and Col. 6, lines 38-67).

With respect to claim 10, Ogino et al. further teaches wherein: said data managing system further includes a judging unit to judge, based on said appended information, whether image reconstruction based on said raw data or projection data is possible in said second X-ray computed tomographic apparatus; and said second transmission unit transmits said raw data or projection data and said appended information to said second X-ray computed tomographic

Art Unit: 2882

apparatus only when said judging unit judges the reconstruction as being possible (Paragraph 221).

With respect to claim 11, Ogino et al. further teaches wherein said data managing system further includes a backup data generating unit to generate backup data in a certain storage unit, based on said raw data or projection data and said appended information (Paragraph 26).

With respect to claim 12, Ogino et al. further teaches wherein: said data managing system further includes a table creating unit (701G) to create a table that correlates said raw data or projection data and said appended information with the storage unit in which said backup data has been generated; and said storage unit stores said table (701).

With respect to claim 22, Ogino et al. teaches an X-ray computed tomographic apparatus (A_CT#1) connected, via a network (1), to a data managing system (500-1) managing projection data, said apparatus comprising: a reception unit to receive, from said data managing system, data obtained in an X-ray computed tomographic apparatus (a14 and a157).

Ogino et al. is silent as to appended information including the number of data acquisition element arrays used when obtaining one of said raw data and said projection data. Ogino et al. fails to teach data received is one of raw data and projection data and a reconstruction unit to perform image reconstruction based on one of said raw data and said projection data, and said appended information received.

Gagnon et al. teaches data received is one of raw data and projection data and a reconstruction unit to perform image reconstruction based on one of said raw data and said projection data, and said appended information received (Col. 7, lines 22-41).

Hoffman et al. teaches wherein appended information including the number of data acquisition element arrays used when obtaining one of said raw data and said projection data (Col. 4, line 53 – Col. 5, line 10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ogino et al. to include the reconstruction unit of Gagnon et al., since a person would have been motivated to have a system in which image data collected on one medical imaging photographic apparatus that was low on resources would be processed on a second medical imaging photographic apparatus that had resources available thereby making more efficient use of those network resources (Col. 7, lines 22-41) as implied by Gagnon et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate into the system of Ogino et al. as modified above the detector array and data acquisition system of Hoffman et al., since a person would have been motivated to have a system with enhanced detector coverage (Col. 7, lines 21-27) as taught by Hoffman et al.

With respect to claim 25, Ogino et al. further teaches a judging unit to judge whether one of said raw data and said projection data transmitted from said data managing system is reconstructible in said reconstruction unit, wherein said reception unit receives one of said raw data and said projection data, and said appended information only when said judging unit judges the reconstruction as being possible (Paragraph 221).

With respect to claim 26, Ogino et al. further teaches a judging unit to judge whether one of said raw data and said projection data transmitted from said data managing system is reconstructible in said reconstruction unit (Paragraph 221); and a request unit (500-1) to request said data managing system to perform data processing on one of said raw data and said projection data to enable one of generation and display of a reconstruction image based on one of said raw data and said projection data in apparatus when said judging unit judges the reconstruction as being possible, wherein said reception unit receives, from said data managing system, said appended information and one of said raw data and said projection data having been processed (Abstract). Gagnon et al. further teaches said apparatus is an X-ray computed tomographic apparatus (Col. 7, lines 22-41).

7. Claims 8 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino et al. in view of Gagnon et al. and Hoffmann et al. as applied to claim 5 and 22 above, and further in view of He et al. (6,141,398), Hu et al. (5,430,783) and Okumura et al. (6,658,082).

With respect to claims 8 and 23, Ogino et al. as modified above suggests the system as recited above. Hoffmann et al. further teaches selecting slice widths based on the number of arrays used of the detector (Col. 4, lines 48-67).

Ogino et al. as modified above fails to teach wherein said reconstruction unit chooses, based on the number of arrays used, one of a first reconstruction method that does not concern an influence of a cone angle of an X-ray irradiated from said X-ray irradiating unit and a second

Art Unit: 2882

reconstruction method that concerns the influence of the cone angle of the X-ray, and performs image reconstruction through the reconstruction method chosen.

He et al. teaches wherein said reconstruction unit chooses, based on the number of arrays used, one of a first reconstruction and a second reconstruction method and performs image reconstruction through the reconstruction method chosen (Col. 2, lines 20-27).

Hu et al. teaches a first reconstruction method that does not concern an influence of a cone angle of an X-ray irradiated from said X-ray irradiating unit (Abstract).

Okumura et al. teaches a second reconstruction method that concerns the influence of the cone angle of the X-ray (Col. 12, lines 15-32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate into the system of Ogino et al. as modified above the protocol of He et al., since a person would have been motivated to have a system which facilitated improved imaging productivity (Col. 2, lines 44-46) as taught by He et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate into the system of Ogino et al. as modified above the reconstruction method of Hu et al., since a person would have been motivated to have a system that produces more accurate reconstruction (Col. 6, lines 46-47) as taught by Hu et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate into the system of Ogino et al. as modified above the reconstruction method of Okumura et al., since a person would have been motivated to have a system of effectively utilizing a detector which is wide in the slice direction (Col. 12, lines 30-32) as taught by Okumura et al.

8. Claims 9 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino et al. in view of Gagnon et al. and Hoffmann et al. as applied to claims 5 and 22 above, and further in view of He et al.

With respect to claims 9 and 24, Ogino et al. as modified above suggests the system as recited above. Hoffmann et al. further teaches wherein said certain number is 4 and one of 8 or 16 (Col. 5, lines 11-14 and Col. 6, lines 38-48).

Ogino et al. as modified above fails to teach wherein said reconstruction unit chooses said first reconstruction method dependent upon said certain number.

He et al. teaches wherein said reconstruction unit chooses said first reconstruction method dependent upon said certain number (Col. 7, lines 33-36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate into the system of Ogino et al. as modified above the protocol of He et al., since a person would have been motivated to have a system which facilitated improved imaging productivity (Col. 2, lines 44-46) as taught by He et al.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino et al. in view of Gagnon et al. and Hoffmann et al. as applied to claim 5 above, and further in view of Kling et al. (6,907,099).

Art Unit: 2882

With respect to claim 13, Ogino et al. as modified above suggests the system as recited above. Ogino et al. as modified above fails to explicitly teach wherein said first X-ray computed tomographic apparatus and said second X-ray computed tomographic apparatus are a single apparatus.

Kling et al. teaches wherein said first X-ray computed tomographic apparatus and said second X-ray computed tomographic apparatus are a single apparatus (Col. 10, lines 35-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate into the system of Ogino et al. as modified above the processing pipeline (104) and modular construction (108) of Kling et al. since a person would have been motivated to have a system that is easily mapped to meet a wide range of product performance and cost objectives (Col. 3, lines 57-60) as taught by Kling et al.

10. Claims 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino et al. and further in view of Gagnon et al.

With respect to claim 14, Ogino et al. teaches a data managing system (500-1) comprising: a reception unit (10A) to receive, from said first X-ray computed tomographic apparatus (A_CT#1), one of raw data and projection data (D1) obtained in said first X-ray computed tomographic apparatus and appended information including the number of data acquisition element arrays used when obtaining one of said raw data and said projection data; a storage unit (500-1) to store one of said raw data and said projection data, and said appended information received; and a transmission unit (10A) to transmit one of said raw data and said

Art Unit: 2882

projection data, and said appended information to said second apparatus (Item and Paragraphs 238-239).

Ogino et al. fails to teach wherein said second apparatus is said second X-ray computed tomographic apparatus.

Gagnon et al. teaches wherein said second apparatus is said second X-ray computed tomographic apparatus (Col. 4, lines 65 – Col. 5, lines 6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ogino et al. to include the reconstruction unit of Gagnon et al., since a person would have been motivated to have a system in which image data collected on one medical imaging photographic apparatus that was low on resources would be processed on a second medical imaging photographic apparatus that had resources available thereby making more efficient use of those network resources (Col. 7, lines 22-41) as implied by Gagnon et al.

With respect to claim 15, Ogino et al. further teaches a backup data generating unit (10F) to generate backup data in a certain storage unit, based on said projection data and said appended information.

With respect to claim 16, Ogino et al. further teaches a judging unit to judge, based on said appended information, whether image reconstruction based on one of said raw data and said projection data is possible in said second X-ray computed tomographic apparatus, wherein said transmission unit transmits one of said raw data and said projection data, and said appended

Art Unit: 2882

information to said second X-ray computed tomographic apparatus when said judging unit judges the reconstruction as being possible (Paragraph 221).

With respect to claim 17, Gagnon et al. further teaches a data processing unit to process one of said raw data and said projection data to enable one of generation and display of a reconstruction image based on one of said raw data and said projection data in said second X-ray computed tomographic apparatus when said judging unit judges the reconstruction as being impossible, wherein said transmission unit transmits said appended information and one of said raw data and said projection data processed by said processing unit to said second X-ray computed tomographic apparatus when said judging unit judges the reconstruction as being impossible (Col. 4, lines 65 – Col. 5, lines 6).

With respect to claim 18, Ogino et al. further teaches said transmission unit transmits reconstruction image data to said second X-ray computed tomographic apparatus (Abstract). Gagnon et al. further teaches wherein said data processing unit performs image reconstruction based on one of said raw data and said projection data, and said appended information (Col. 4, lines 65 – Col. 5, lines 6).

With respect to claim 19, Ogino et al. further teaches a table creating unit (701G) to create a table that correlates one of said raw data and said projection data, and said appended information with the storage unit in which said backup data has been generated, wherein said storage unit stores said table (701).

Response to Arguments

11. Applicant's arguments with respect to claims 6 and 27 have been considered but are moot in view of the new ground(s) of rejection.

12. Applicant's arguments filed 1 February 2007 have been fully considered but they are not persuasive.

With regards to claims 1, 5, 14, 20 and 22, the Applicant argues that Ogino fails to teach transmitted raw data or projection data. The Examiner disagrees. The Examiner directs the Applicant's attention to Figure 8 that represents a form of the image data (D1) and Figure 14 in which the image data (D1) is part of an image processing request (Q) that includes the type of image processing to be done (Hd) on the image data (D2). Examples of image processing include projection processing such as addition and subtraction (Paragraph 221). Therefore, Ogino does teach transmitted raw data or projection data and the claims remain rejected.

With regards to claims 1, 5, 14, 20 and 22, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., raw data or projection data that ... cannot directly be displayed as an image) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With regards to claims 1, 5, 14, 20 and 22, the Applicant argues that Ogino fails to teach transmitted appended information. The Examiner disagrees. The Examiner directs the Applicant's attention to Figure 8 and Paragraph 176 which indicates imaging conditions which is information of the photographing condition and needed to generate biological information related to the subject in the image processing section 501 which operates under the control of an image processing program (Paragraph 217). Therefore, Ogino does teach transmitted appended information and the claims remain rejected.

With regards to claims 5, 14, 20 and 22, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.

In conclusion, the Applicant's arguments are not persuasive, and the claims remain rejected.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

Art Unit: 2882


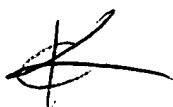
the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Corbett whose telephone number is (571) 272-8284. The examiner can normally be reached on M-F 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward J. Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

5 March 2007 JMC



EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER